# PERFORMANCE WORK STATEMENT (PWS) FOR

# TURN-KEY SOFTWARE ENGINEERING, ANALYSIS, CONTENT DEVELOPMENT, LOGISTICS, AND LIFE CYCLE SUPPORT SERVICES FOR AUTHORING INSTRUCTIONAL MATERIALS (AIM)

#### 1.0 SCOPE.

This PWS identifies and defines the requirements for the Contractor to provide turn-key software engineering, analysis, content development, logistics, and life cycle support services for the Authoring Instructional Materials (AIM) program.

Naval Air Warfare Center Training Systems Division (NAWCTSD) is the System Support Office (SSO) for AIM. The AIM SSO provides overall programmatic and technical management as well as end-user support to the AIM user community.

#### 1.1 AIM BACKGROUND.

AIM is a set of software tools designed to improve, streamline, and automate certain aspects of the development and maintenance of Navy training materials. The Navy uses three different approaches for the development of training materials: Personnel Performance Profile (PPP), Task-Based, and Competency/Skills-Based. AIM I supports the PPP approach to training material development, AIM II supports the Task-Based approach, and AIM Content Planning Module (CPM)/Learning Object (LO) Module supports a Competency/Skills-Based or Integrated Learning Environment (ILE) approach. These tools allow for more efficiency and responsiveness in the production and life cycle maintenance of training materials at all Navy training activities and in some organizations external to the Navy. AIM also optimizes the process of instructional development and standardizes the training materials by automating the format and standards promulgated in various military and commercial training design/development standards. AIM I, II, and CPM/LO Module all operate in the Microsoft Windows environment to provide a graphical user interface.

AIM access is currently provided from a centralized environment, whereby users to access standalone versions of the AIM software and database from geographically dispersed locations. This AIM Central Site effort provides AIM software access and related data to an increasingly wider Navy audience and help ensures data integrity and concurrency. For those users who are not able to access the centralized environment, standalone instances of the AIM software are still in use. Content Planning Module (CPM) is web-based. Current plans for the AIM project are an eventual merge of the Learning Object Module with Content Planning Module for a fully webified AIM application.

A major driver of future potential AIM functionality is the Navy's Ready Relevant Learning effort. This strategic initiative, with a focus on Ready, Relevant, Learning is focused on delivering training in a modular construct through immersive and interactive learning capabilities, providing just in time training when a Sailor needs it. This effort will improve training efficiency and allow for more sailor time on ship during initial contract.

AIM requirements will continue to evolve as the Navy's Ready Relevant Learning initiative and other Competency/Skills-Based approaches mature. These requirements are defined by the Navy's AIM governance organizations (Configuration Control Board (CCB), Executive Steering Committee (ESC), and Functional Requirements Board (FRB).

#### 2.0 GOVERNMENT STANDARDS.

The following government standards apply:

- 1. IEEE/EIA 12207-2008 Information Technology Software Life-Cycle Processes
- 2. MIL-PRF-29612B Training Data Products dated August 2001
- 3. DODI 8500.01 Cybersecurity
- 4. DoD 5220.22-M National Industrial Security Program Operating Manual (NISPOM)

#### 2.1 OTHER PUBLICATIONS.

NAVEDTRA 130 Series Documents – NETC training content and management guidance documents NETC Course Development, Revision, and Modification End-to-End (E2E) Process Standard Operating Procedures (SOP).

NETCINST 1500.9 - Training Requirement Identification And Resource Sponsor Commitment.

#### 3.0 REQUIREMENTS.

The contractor shall provide turn-key AIM software engineering, analysis, content development, logistics, and life cycle support services in accordance with (with (IAW) the requirements set forth in this SOW-PWS and the contract.

#### 3.1 GENERAL REQUIREMENTS.

#### 3.1.1 <u>Programmatic requirements</u>.

The contractor's organization shall provide the necessary personnel, materials, equipment, and facilities to provide the services described in this <a href="SOW-PWS">SOW-PWS</a> and all task orders (TOs) issued under this contract. The contractor shall measure, monitor, and assess the progress of the work performed and costs incurred under the contract. The contractor shall prepare the Contractor's Progress, Status and Management Report (Monthly Status Report) IAW the Monthly Status Report CDRL.

#### 3.1.1.1 Work Planning and Scheduling

The contractor shall develop, document, manage and apply in Integrated Master Schedule (IMS) that presents the contractor's and any subcontractor's plans and schedules to meet the requirements of the contract. The contractor shall develop and document a tiered scheduling system showing the program milestones and prerequisite events, conferences, data submittals and deliveries. The contractor shall construct the IMS to ensure that the program milestones are met and to ensure that deliveries meet the requirements of the contract. Contractor schedule information delivered to the government or presented at program reviews shall originate from the IMS. The contractor shall perform analyses of the IMS tasks, compare the IMS tasks to the scheduling baseline, report potential or existing problem areas, and recommend corrective actions to eliminate or reduce schedule impact. The contractor shall revise the IMS, where necessary, to reflect contract changes. The contractor shall use the IMS as a day-to-day execution tool and periodically assess progress in meeting program requirements. The contractor shall prepare the Integrated Program Management Report (IMPR) IAW the IMS CDRL.

## 3.1.1.2 Personnel

The contractor shall employ professional and technically qualified personnel to perform the tasks. The contractor shall maintain the personnel, organization, and administrative control necessary to ensure that the work delivered meets the contract and task order specification requirements. Contractor personnel are expected to participate in positive information sharing about the AIM Program and NETC Content Development processes. The government reserves the right, during the life of this contract, to request work histories on any contractor employee for the purpose of verifying compliance with the above requirements.

#### 3.1.1.3 Facility(s) access.

The contractor shall allow the government access to the contractor's facility(s) for the purpose of reviewing the contractor's performance on this contract, and allow the government to review internal contractor's documentation pertinent to this contract effort at any time during the period of performance of this contract.

#### 3.1.1.4 Security Clearance.

The contractor personnel shall possess the required security level clearance prior to receiving task assignment. The highest level of classification anticipated under this requirements contract is Top Secret - Sensitive Compartmented Information (less than 1% of the requirement). The majority (99%) of the effort is SECRET/Navy Nuclear Propulsion Information (NNPI). While working on classified tasks, the contractor shall safeguard all classified material IAW applicable DoD and industrial security regulations.

#### 3.1.1.5 Security (Unclassified systems)

The security requirements specified herein shall apply to the contractor and subcontractors. The contractor shall comply with applicable on-site security regulations related to facility access and building access. The contractor shall safeguard all sensitive information and controlled unclassified information IAW the contractor's locally established security plan (if the contractor already has an established local security plan). The contractor shall enforce these safeguards throughout the life of the contract including the transport and delivery phases and the disposition and storage of controlled unclassified information at contract completion. If the contractor does not have an established security plan that addresses the protection of classified, proprietary, sensitive, or controlled unclassified information, the contractor shall prepare the OPSEC Plan IAW the security policy, procedures, and requirements for classified information provided in DoD 5220.22-M and the Operations Security (OPSEC) Plan CDRL.

#### 3.1.1.6 Contractor - Owned Unclassified Network Security.

The contractor shall take means (defense-in-depth measures) necessary to protect the confidentiality, integrity, and availability of government controlled unclassified information in the same manner as the contractor would protect its own unclassified company proprietary information. The contractor shall ensure that contractor-owned or operated unclassified IT network assets (including assets used for contractor teleworkers) used to process sensitive government information (controlled unclassified information) are managed and maintained IAW commercial best practices, vendor-specific, or other nationally or internationally-recognized IT configuration and management standards.

# 3.1.1.7 <u>Information Security Requirements for Protection of Unclassified DoD Information on Non-DoD Systems.</u> The contractor shall safeguard unclassified DoD information stored on non-DoD information systems to prevent the loss, misuse, and unauthorized access to or modification of this information. The contractor shall:

- a. Refrain from processing DoD information on public computers (e.g., those available for use by the general public in kiosks or hotel business centers) or computers that do not have access control.
- b. Protect information by no less than one physical or electronic barrier (e.g., locked container or room, login and password) when not under direct individual control.
- c. Sanitize media (e.g., overwrite) before external release or disposal.
- d. Encrypt the information that has been identified as Controlled Unclassified Information (CUI) when it is stored on mobile computing devices such as laptops and personal digital assistants, or removable storage media such as thumb drives and compact disks, using the best available encryption technology.
- e. Limit information transfer to subcontractors or teaming partners with a need to know and a commitment to at least the same level of protection.
- f. Transmit e-mail, text messages, and similar communications using technology and processes in accordance with National Institute of Standards Technology Federal Information Processing Standards (NIST FIPS), given facilities, conditions, and environment. Examples of recommended technologies or processes include closed networks, virtual private networks, public key-enabled encryption, and Transport Layer Security (TLS).
- g. When traveling, encrypt organizational wireless connections and use encrypted wireless connections When encrypted wireless is not available, encrypt application files (e.g., spreadsheet and word processing files), using no less than application-provided password protection level encryption.
- h. Transmit voice and fax transmissions only when there is a reasonable assurance that access is limited to authorized recipients.
- i. Provide protection against computer network intrusions and data exfiltration, including no less than the following:
  - (1) Current and regularly updated malware protection services, e.g., anti-virus, anti-spyware.
  - (2) Monitoring and control of inbound and outbound network traffic (e.g., at the external boundary, sub-networks, individual hosts) including blocking unauthorized ingress, egress, and exfiltration through technologies such as firewalls and router policies, intrusion prevention or detection services, and host-based security services.
  - (3) Prompt application of security-relevant software patches, service packs, and hot fixes.
- j. Comply with other current Federal and DoD information protection and reporting requirements for specified categories of information (e.g., Critical Program Information (CPI), Personally Identifiable Information (PII), and export controlled information).

#### 3.1.2 AIM Software File Transfer Capability.

The contractor shall provide the means to perform electronic bi-directional transfer of government compatible computer files and other pertinent data and program information to the AIM SSO.

#### 3.1.3 Navy-Marine Corps Intranet (NMCI) and Information Assurance (IA) Compliance.

The contractor shall meet NMCI certification requirements for AIM software developed that is hosted by NMCI or run on NMCI workstations. The contractor shall comply with NMCI replacement policy. The contractor shall also test, verify, and document that the software developed is in compliance with the security requirements and IA controls identified in DODI 8500.2.

#### 3.1.4 Software Corrective Action/Modification/Enhancement Directive Process.

The contractor shall implement a software corrective action/modification/enhancement directive process. That process shall ensure regulation of the flow of proposed corrective actions/modification/enhancement directives, documentation of the complete impact of the proposed corrective action/modification/enhancement directives, and release only of approved configuration change directives into configuration items and their related configuration documentation. The following requirements are included in the corrective action/modification/enhancement directives process:

- a. The contractor shall provide updated revision(s) to the software and related documentation based on software corrective action/modification/enhancement directives.
- b. If changes to the software and documentation changes are disapproved by the AIM SSO, the changes are returned to the contractor for corrective work. If software and documentation changes are approved by the AIM SSO, they are forwarded to the NETC AIM Program Manager for approval. If approved by the NETC AIM Program Manager, the contractor schedules incorporation of the software corrective actions/modifications/enhancements into the AIM baseline. If the software and documentation changes are disapproved by the NETC AIM Program Manager, the changes are returned to the contractor for corrective work.
- c. The contractor shall assign version numbers to the software and revision numbers to the documentation and incorporate the change(s) into a SCL (Software Configuration Library) which the contractor shall maintain. The Contractor shall provide SCL access to the AIM SSO upon request.

#### 3.1.5 AIM Configuration Control (CC).

Upon award of and during the performance of any TO where the AIM software is undergoing any corrective action/modification/enhancement and verification, the contractor shall provide a plan to monitor and manage software configuration and documentation IAW paragraphs 7.2.2 through 7.2.2.3.6.1 of IEEE/EIA 12207-2008. The contractor's configuration control approach and plan shall be detailed in the Management Plan CDRL.

#### 3.1.6 AIM Quality Assurance (QA).

Upon award of and during the performance of any TO where the AIM software is undergoing any corrective action/modification/enhancement and verification, the contractor shall provide a plan to perform software quality assurance IAW the requirements of IEEE/EIA 12207-2008, paragraph 7.2.3 through 7.2.3.3.4.1. The following specific quality assurance tasks shall also be performed:

- a. All contractor data submittals shall be reviewed prior to submission to the government. The review shall include, at a minimum, verification that all documents are in the correct format, consistency within the documents, submittal meets content requirements, submittal contents are true and accurate, and that the data submittal complies with the requirements of the contract
- b. The contractor shall ensure that each functional requirement is traceable to its implementation in the system software and that each requirement is tested and documented

The contractor's quality assurance approach and plan is detailed in the Management Plan CDRL.

## 3.1.7 Post-Award Conference (PAC)/Contract Closeout.

The contractor shall attend a government-scheduled two (2)-day post award conference at the contractor's facility within thirty days after PAC task order award in which the contractor's lead management, functional,

technical, and contractual personnel are in attendance. The government will prepare the agenda, and the contractor shall prepare and deliver meeting minutes IAW the Conference Minutes CDRL.

#### 3.1.7.1 Mobilization Phase.

The contractor shall implement a mobilization plan to familiarize themselves with the AIM software, related source code, the NAVEDTRA 130 Series and MIL-PRF-29612B series documents, and be fully operational to meet the requirements of this <a href="SOW-PWS">SOW-PWS</a> thirty (30) days from task order award. By the end of the mobilization phase, the contractor shall obtain and have in place all required personnel, materials, equipment, and facilities to execute the tasks of this contract.

#### 3.1.8 Facility

All taskings are conducted in contractor's spaces unless otherwise indicated within individual task orders.

#### 3.2 SPECIFIC REQUIREMENTS.

#### 3.2.1 Core Software Sustainment.

The contractor shall furnish the following core software sustainment services:

#### 3.2.1.1 Logistics support.

The contractor shall provide logistics support to the AIM SSO within reasonable time constraints set forth by the government for each task. This support shall consist of the following tasks:

#### 3.2.1.1.1 Management planning.

The contractor shall develop and maintain a management plan by adding details to, updating, and revising the management plan throughout the life of the contract. The Contractor's Configuration Control and Quality Assurance Process plans shall be clearly detailed in the management plan. The contractor shall include a risk mitigation plan that details identification, classification, planning, tracking, & resolution of risk in the management plan. The contractor shall also identify their single point of contact (POC) for the contractual effort. The contractor shall prepare the management plan IAW the Management Plan CDRL.

#### 3.2.1.1.2 Government and Contractor Coordination.

The contractor shall support the AIM SSO utilizing the following communication formats:

- a. Phone-conferencing
- b. Web meetings
- c. Video Teleconferencing (VTC)
- d. Local contractor meetings
- e. E-mail correspondence
- f. Contractor hosted website for dissemination of AIM information

The contractor shall provide brief summaries of each communication documenting all pertinent information exchanged and action items assigned during the coordination. These summaries shall be prepared in contractor format and delivered via email to the government IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL.

#### 3.2.1.1.3 Conferences and Meetings.

The contractor shall attend and/or participate in a maximum amount of two (2) conferences or meeting per month, not to exceed 24 annually. The meeting could be either an AIM FRB meeting, or another conference or meeting the government designates for attendance by the contractor.

In the case of an AIM FRB meeting, the contractor shall attend and provide AIM functional and technical support for a maximum of two FRB meetings per year, and each FRB meeting will be three days in length. The meetings are held in Orlando, FL or Virginia Beach, VA area at a government facility or other facility indicated by the government, and will require planning, coordination, and logistics support from the contractor. Any travel and associated costs necessary to support the FRB are included in the Core Software Sustainment CLINs. The contractor is given at least fifteen calendar days advance notice of any FRB meeting and ten calendar days for

cancellation of FRB meetings. The government will prepare the agenda, and the contractor shall prepare and deliver meeting minutes IAW the Conference Minutes CDRL.

In addition to the FRB meetings and during the analysis, design, production, and delivery of training data and products, the contractor shall attend and/or conduct/participate in a maximum of ten conferences or meetings and reviews per year with one individual in attendance. The conferences or meetings will occur in Washington, DC, Virginia Beach, VA, Pensacola, FL, San Diego, CA, or Orlando, FL and will not exceed five days in duration. The contractor shall prepare agendas, reports, and minutes for conferences and meetings attended and deliver via email to the government IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL. Any travel and associated costs necessary to support conferences and meetings is included in the Core Software Sustainment CLINs. The contractor is given at least fifteen calendar days advance notice of any conference or meeting and ten calendar days for cancellation.

#### 3.2.1.1.4 Weekly and Monthly Status Reports.

The contractor shall provide weekly progress and status reports of the current efforts under this contract via telephone. The report shall also identify and contain summary-level information on all on-going task orders, to include status of work completed under each task order and areas of risks. The phone call shall not exceed sixty minutes.

The contractor shall provide a summarized monthly progress and status report of the current efforts under this contract IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL. The report shall also identify and contain summary-level information on all on-going task orders, to include status of work completed under each task order and identify any cost, schedule, and performance risks. The contents of the monthly status report shall be comprised of the weekly status report data. The report shall not exceed twenty (20) pages in length.

#### 3.2.1.2 Software Training Sessions.

The contractor shall conduct two (2) monthly AIM user training session(s) of the current Navy AIM I, AIM II, CPM, and LO Module User Training Course Curriculum in San Diego, CA and Virginia Beach, VA). The sessions shall not run concurrently unless concurrent sessions can be arranged and agreed upon by both the contractor and the government. The training session shall be a maximum of forty hours in length and be completed within five (5) days with classrooms and supporting infrastructure provided by government after coordination with the hosting facility and contractor. The class shall consist of no more than 25 students. No class will be executed with fewer than eight students without prior approval of the NETC AIM Program Manager. If in the event of software modification or otherwise change, the contractor is expected to modify the courses in order to ensure that they correspond to the production software to the greatest extent possible.

The contractor is responsible for administration of the training including:

- a) Informational website addressing class schedules and locations
- b) Ouota control
- c) Class reservations and reminders
- d) Forwarding specific access forms required for classroom computer access to prospective students

The contractor shall utilize qualified instructors who:

- a. Are subject matter experts in curriculum development and maintenance
- b. Are subject matter experts in the use of AIM to support curriculum development and maintenance activities
- c. Have general Windows/networking knowledge and experience

At the completion of each training session, the contractor shall require that each student/trainee complete an online course assessment, (link is provided as Government-Furnished Information upon award of this contract)

The following item shall be collected by the contractor and delivered to the government within five working days of the conclusion of each training session and IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL:

A short contractor-prepared summary of the training session (to include minimal data about attendees and any administrative or other issues deemed noteworthy or problematic)

The government reserves the right to cancel and reschedule any of these training sessions ten (10) calendar days prior to session execution at no cost to the government. The government reserves the right to order additional instances of training classes at a prorated, per-unit cost, not to exceed the cost identified for classes normally scheduled that meet the requirements of this contract. Per task order the government reserves the right to request courses in other geographic locations.

#### 3.2.1.3 <u>Software Demonstrations and Design Meetings.</u>

The contractor shall support the demonstration/tutorials of software or software design documents to users, potential user communities and stakeholders as requested or approved by the government. These demonstrations will include design meetings and presentations to NETC stakeholders of functional design documents or prototypes of software in development. The demonstrations and design meetings are conducted via web meeting/conference phone and will last no longer than two hours in duration. A maximum of six software demonstrations shall occur per month, not to exceed 72 demonstrations annually.

#### 3.2.1.4 Software technical assessments.

The contractor shall complete software quality assessment annually of all delivered source code using Static Code Analysis (SCA) tools designed to ensure that software follows best coding practices. The contractor shall deliver a report summarizing assessment findings via email to the government IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL.

#### 3.2.1.5 Software Functional Requirements Matrix (FRM)/AIM Change Request (ACR) maintenance.

The contractor shall maintain the AIM software FRM and ACR matrix IAW the Revisions to Existing Government Documents/Software Functional Requirements Matrix (FRM)/AIM Change Request (ACR) Maintenance CDRL. AIM FRM and ACR elements are captured by the government and passed to the contractor for inclusion in the FRM and ACR matrix. FRM and ACR elements captured by the contractor (either from AIM users or generated by the contractor) are validated by the government before being added to and maintained in the matrix.

# 3.2.1.6 Software Trouble Support.

The contractor shall provide software trouble support to the AIM SSO. This support shall consist of:

- a. Technical assistance (TA) and response to technical questions concerning the AIM software (including AIM database, vendor software, centralized AIM servers, and other software). No more than four (4) hours of assistance shall be provided per working day and support shall be provided between the hours of 0800 and 2000 (Eastern Standard Time).
- b. Receipt of trouble reports (TR) from the AIM SSO. The TRs are communicated telephonically or electronically via email or the Remedy system. The contractor shall review, analyze, assess, and attempt to resolve each TR. The result of the contractor's analysis of the problem(s) or resolution(s) are communicated to the AIM SSO telephonically, electronically via email or helpdesk tracking system. The contractor shall resolve a maximum of 30 TRs monthly, not to exceed 360 annually. The TRs may result in minor software corrective actions. Government will facilitate contractor access to the online Remedy system or any other valid TR system.

c.

# 3.2.1.7 <u>Minor Software Corrective Actions.</u>

The contractor shall adhere to the direction found in the sub-paragraphs for executing minor AIM software corrective actions identified in a TR. Each TR and associated minor software corrective action will require no more than five person-day of contractor software engineering support to resolve, and will not add any significant new software functionality or enhancements. All software corrective actions are performed IAW the software processes and standards, CC, and QA requirements identified in this <a href="SOWPWS">SOWPWS</a>. All software corrective actions performed, as well as any deficiencies or issues resulting from the corrective actions, are documented IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL.

#### 3.2.1.7.1 Test, Validation, and Verification of Corrective Actions.

The contractor shall test, validate, and verify software corrective actions prior to communication of the actions and solutions to the government. Test, validation, and verification of the corrected software includes, but is not limited to ensuring that:

- a. software corrective actions have been successfully integrated
- b. missing, extraneous, and incompatible requirements are identified
- c. the functionality of the system is in compliance with the applicable corrective action

Test, validation, and verification of the corrected software is not considered complete or acceptable until all deficiencies found during the testing of the modified software have been corrected by the contractor, successfully retested, and accepted by the government.

## 3.2.1.7.2 Delivery and Technical Assistance for Corrective Actions.

After successful contractor testing, validation, and verification of the corrective action(s), the contractor shall deliver the corrected software to the AIM SSO for government acceptance testing. The contractor shall provide technical assistance during government testing of the corrected software. This assistance shall include, but not be limited to, providing advice and technical assistance on testing and troubleshooting any issues and correcting any errors found by the government.

#### 3.2.1.7.3 <u>Software Documentation.</u>

The contractor shall update the AIM User's Manual and Software Maintenance Manual (SMM) to reflect any software corrective action changes. The contractor shall also prepare short video demonstrations using Captivate or similar software and post on the contractor hosted website demonstrating the major software changes. The contractor shall apply the QA process identified in their management plan to each document before it is submitted to the government. The contractor shall prepare the User's Manual and SMM IAW the Revisions to Existing Government Documents/Software Documentation CDRL.

#### 3.2.1.8 Software Modification Rough Order of Magnitude Estimates.

The contractor shall provide rough order of magnitude (ROM) estimates for proposed software modifications identified in <u>SOW-PWS</u> paragraph 3.2.1.5 (FRM and ACR elements). There is a maximum 120 annually. Those ROMs to specific FRM & ACR elements are provided only when requested by the government. The ROM estimates for each modification shall consist of:

- a. Labor hours and time to complete the analysis portions of the software modification process
- b. Labor hours and time to complete the actual software coding of the modification
- c. A short (one paragraph) technical summary of the modification

The ROMs shall be documented IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL.

# 3.2.1.9 <u>Transition Support</u>

The contractor shall, in addition to their ongoing responsibilities in this SOWPWS, provide reasonable and customary support in effecting a smooth transition to the successor contractor by providing reasonable levels of data and support sufficient to the successor's understanding of the underlying code structure and coding languages utilized in development and maintenance of the AIM software. The contractor shall provide this support one time only during the final month of the contract. As part of the transition support, the contractor shall deliver the latest version of the AIM source code back to the government at the end of the contract. This transition support shall be briefly summarized IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL.

#### 3.2.2 Software Modifications and Product Generation.

The contractor shall perform the following tasks related to software modifications that are considered other than minor modifications (identified in paragraph 3.2.1.7 of this <a href="SOWPWS">SOWPWS</a>). The contractor shall also generate ISD-related products identified from analytic activities of paragraph 3.2.4.2 of this <a href="SOWPWS">SOWPWS</a>. These modification and product generation tasks are priced separately under individual <a href="SOWS">SOWPWS</a> and issued as separate TOs under this contract.

#### 3.2.2.1 Major Software Modification Process.

The contractor shall adhere to the direction found in the sub-paragraphs for executing a maximum amount of eighteen major AIM software modifications annually. These major modifications, when bundled together, add new software functionality or enhancement, generally resulting in new releases of the AIM software. All software modifications/enhancements are performed and ISD-related products generated IAW the software processes and standards, CC, and QA requirements identified in this <a href="SOW-PWS">SOW-PWS</a> and in the contractor's Management Plan (identified in paragraph 3.2.1.1.1 of this <a href="SOW-PWS">SOW-PWS</a>). That <a href="status of these major modifications are statuses of these major modifications are briefly summarized IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL.

#### 3.2.2.1.1 Government-issued Software Modification/Enhancement Directives.

The contractor shall modify/enhance and integrate AIM software IAW Government-issued Software Modification/Enhancement Directives based on Software Change Impact Statements that have been selected for implementation. Government-issued Software Modification/Enhancement Directives lead to software releases of new AIM versions. All AIM software modifications/enhancements are IAW applicable Navy specifications and standards unless the government specifically requires otherwise. The contractor shall ensure that all parts of the AIM system are completely compatible and usable with all changes.

#### 3.2.2.1.2 <u>Test, Validation, and Verification of pre-released software</u>.

The contractor shall test, validate, and verify software modifications/enhancements prior to delivery of a new software version to the government. Test, validation, and verification of the modified/enhanced software ensures that:

- a. Software Modification/Enhancement Directives have been successfully integrated
- b. the impending new release integrates with the existing software and hardware
- c. each function is adequately specified
- d. system requirements are fulfilled
- e. missing, extraneous and incompatible requirements are identified
- f. the functionality of the system is in compliance with the applicable Modification/Enhancement Directive

Test, validation, and verification of the modified/enhanced software is not considered complete or acceptable until all deficiencies found during the testing of the modified/enhanced software have been corrected by the contractor, successfully re-tested, and accepted by the government.

# 3.2.2.1.3 <u>Initial Delivery, Technical Assistance, and Revision of a New Software Release (Change Package)</u>.

After successful contractor testing, validation, and verification of the pre-release software, the contractor shall deliver the pre-release software (referred to as a change package) to the AIM SSO IAW the Computer Software Product End Items/Initial Delivery, Technical Assistance, and Revision of a New Software Release (Change Package) CDRL. The contractor shall provide technical assistance during government testing of the change package, which will occur after initial software delivery. This assistance shall include, but not be limited to, providing advice and technical assistance on testing and troubleshooting any issues found by the government. After the government completes its testing, the contractor shall revise the change package to correct any and all deficiencies found during testing. After the changes have been made, the contractor shall provide a revised Change Package to the SSO for final government testing including detailed notes describing all changes and new features included in the change. The revised Change Package shall include all software source code, including any drivers necessary to generate executable code, and any instructions needed to compile the software. The contractor shall deliver the source code IAW the Computer Software Product End Items CDRL. The contractor shall also deliver an updated User's Manual and Software Maintenance Manual (SMM) to reflect the Change Package software changes IAW the Revisions to Existing Government Documents/Software Documentation CDRL.

#### 3.2.2.1.4 AIM Software Government Acceptance Test Support

The contractor shall develop and deliver a software user test for use by the government during Government Acceptance Testing (GAT) IAW the Revisions to Existing Government Documents/AIM Software Government Acceptance Test Support CDRL. Following successful GAT testing by government-selected AIM software users, the contractor shall develop and deliver a post-GAT test/inspection report based on the GAT tester inputs IAW the Test/Inspection Report/ AIM Software Government Acceptance Test Support CDRL.

#### 3.2.3 Software Training Sessions and Technical Assist Visits.

The contractor shall perform the following tasks related to software training sessions, technical assist visits, and conference/meeting attendance and support at locations determined by the government. These requirements are issued as separate TOs under this contract.

#### 3.2.3.1 Software Training Sessions (Off-site).

The contractor shall conduct off-site AIM user training sessions of the current Navy AIM I, AIM II, CPM, and LO Module User Training Course Curriculum, in addition to the training sessions identified in paragraph 3.2.1.2 of this SOWPWS. The government expects that a maximum amount of fifteen off-site sessions are conducted annually. The sessions shall not run concurrently with regular training sessions unless concurrent sessions are arranged and agreed upon by both the contractor and the government. The training sessions are a maximum of forty hours in length and be completed within five days with classrooms and supporting infrastructure provided by the sponsor. Training will not commence until coordination between the government, the contractor, and the sponsor has taken place. The contractor shall utilize qualified instructors who:

- a. Are subject matter experts in curriculum development and maintenance
- b. Are subject matter experts in the use of AIM to support curriculum development and maintenance activities
- c. Have general Windows/networking knowledge and experience

At the completion of each training session, the contractor shall require that each student/trainee complete an online course assessment, (link is provided as Government-Furnished Information upon award of this contract)

The following items are documented IAW the Technical Report-Study/Services/Training Summary Report CDRL, and delivered to the government within five working days of the conclusion of each training session:

- d. short contractor-prepared summary of the training session (to include minimal data about attendees and any administrative or other issues deemed noteworthy or problematic)
- e. summary report of the training sessions to include facility or training issues encountered, date and location of training, or any administrative issues
- f. signature of concurrence from government representative (host organization) at offsite on the report. In addition, provide government representative name, phone number and email address.

Each session shall also be briefly summarized IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL.

The government reserves the right to cancel any of the annual off-site training sessions ten business days prior to session execution, at no cost to the government. In the event of a cancellation in fewer than ten days prior to the start of the session, the contractor shall make its best effort to mitigate cost as a result of the cancellation. The contractor shall submit a proposal for the cancelled services to the government to negotiate a settlement for the cancellation of services.

#### 3.2.3.2 Technical Assist Visits (Off-site).

The contractor shall provide off-site technical assistance support to the SSO and/or other AIM sites. One working day of technical assistance support is considered one unit. This support shall consist of problem resolution, trouble-shooting, installation support, demonstrations of upcoming software releases, and other meetings/services to include work on AIM, its hardware and/or software (including contractor software, AIM database, and other software). The contractor shall prepare a visit report IAW the Technical Report-Study/Services/Technical Assist Visit Report CDRL after each visit. The report shall not exceed five pages in length. At a minimum, each Technical Assist Visit Report shall include the following:

- a. Offsite government representatives assisted and duration and location of assistance
- b. Summary of actions addressed and status of resolution
- c. Signature of concurrence from government representative at offsite on the report

Each visit shall also be briefly summarized IAW the Contractor's Progress, Status, and Management Report/Monthly Status Report CDRL.

#### 3.2.4 AIM Related Analysis.

The contractor shall perform the following AIM-related analytical tasks. These requirements are priced separately under individual <u>SOWs-PWS'</u> and issued as separate TOs under this contract.

#### 3.2.4.1 Software Modification/Engineering Change Proposals

The contractor shall prepare a maximum amount of thirty annual Engineering Change Proposals in response to complex ACRs or FRM elements. These analyses are documented and delivered IAW the Engineering Change Proposal/Software Modification/Enhancement/Impact Analysis CDRL.

#### 3.2.5 Travel

Travel is required to perform tasks and is identified on individual TOs.

#### 3.2.6 CDRLs.

CDRLs are specified within each TO. The list below includes a general description of CDRLs required in support of this <u>SOWPWS</u>. Specific lists of data requirements shall be provided within each TO.

# ENGINEERING DATA Exhibits A and B

Data Item Sample Number	Description	Data Item Description (DID)		
A001	Revisions to existing Government	DI-ADMN-80925		
	Documents – Software Functional			
	Requirements Matrix (FRM)/AIM			
	Change Request (ACR) maintenance			
A002	Revisions to existing Government	DI-ADMN-80925		
	Documents – Software			
	Documentation			
A003	Computer Software Product End	DI-MCCR-80700		
	Items - Delivery, Technical			
	Assistance, and Revision of a New			
	Software Release (Change Package)			
A004	Revisions to existing Government	DI-ADMN-80925		
	Documents – AIM Software			
	Government Acceptance Test			
	Support			
A005	Test/Inspection Report - AIM	DI-NDTI-80809B		
	Software Government Acceptance			
	Test Support			
A006	Engineering Change Proposal-	DI-CMAN-80639C		
	Software Modification/Enhancement			
	Impact Analysis			
A007	Technical Report-Study/Services –	DI-MISC-80508B		
	Instructional Systems Design,			
	Development, and all Current and			
	Emerging Modes of Delivery			
	Technology			
A008	Technical Report- Study/Services -	DI-MISC-80508B		
	Training Summary Report			
A009	Technical Report- Study/Services -	DI-MISC-80508B		
	Technical Assist Visit Report			

# ADMINISTRATIVE DATA

Data Item Sample Number	Description	Data Item Description (DID)	
B001	Monthly Status Report	DI-MGMT-80227	
B002	Management Plan	DI-MGMT-80004	
B003	Conference Minutes	DI-ADMN-81250A	
B004	Operations Security (OSPEC) Plan	DI-MGMT-80934B	
B005	Integrated Program Management	DI-MGMT-81861	
	Report - Integrated Master Schedule		

# ATTACHMENT 2 - MATRIX

# **Resource Allocation Matrix**

The labor categories and rates listed below are only applicable to the Software Modification and Product Generation and Software Modification/Enhancement Impact Analysis CLINs.

Labor Categories	Fully Burdened Hourly Rate Base Year	Fully Burdened Hourly Rate Year 2 (Option)	Fully Burdened Hourly Rate Year 3 (Option)	Fully Burdened Hourly Rate Year 4 (Option)	Fully Burdened Hourly Rate Year 5 (Option)
Senior Program Manager	Dase Tear	Teal 2 (Option)	rear 3 (Option)	rear 4 (Option)	rear 5 (Option)
Lead Software Engineer					
Lead ISD/SME					
QA/CM Manager					
Sr. Software Engineer					
Senior ISD/SME					
Software Engineer					
Jr Software Engineer					
Project Manager					
Senior Instructional Designer					
Instructional Designer					
Web Application Developer					
Senior Graphic Developer					
Courseware Developer					
Meeting Support					
Senior SME					
Senior Narrator					
Financial Analyst					
Administrative Assistant					